

**REMARKS**

New claims 10-20 are pending in this application for the Examiner's review and consideration. Applicants have amended the specification and claims to conform with U.S. patent practice and to more clearly recite the invention. As no new matter has been added herein, these changes should be entered.

Date

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Respectfully submitted,

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**Appendix B**  
Changes to the Specification

The paragraph at page 1, line 4 is revised as follows:

The paragraph at page 1, line 1 is revised as follows:

**--TECHNICAL FIELD**

The present invention relates to a process for the preparation of taxanes from 10-deacetylbaccatin III.--

The paragraph at page 1, line 3 is revised as follows:

**--BACKGROUND OF THE INVENTION**

Paclitaxel is a known antitumor drug with taxan structure, whose industrial preparation is particularly complex.--

The paragraph at page 2, line 30 is revised as follows:

**--SUMMARY OF THE INVENTION**

It has now been found a process for the preparation of taxanes, in particular Paclitaxel and Docetaxel, which attains a higher yield than known methods.--

The paragraph at page 5, line 1 is revised as follows:

**--DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

The process of the invention differs from those of the prior art in that the reaction sequence used provides a simpler route than those processes cited above and a remarkable improvement in the obtained yields.--

The paragraph at page 10, line 1 is revised as follows:

**--CLAIMS**

What is claimed is:--

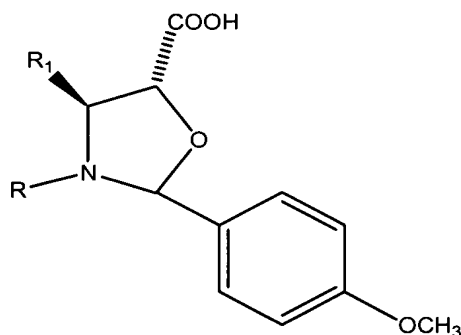
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The chemical structure shows a complex polycyclic molecule, likely a steroid derivative. It features a complex polycyclic core with various functional groups. Key features include:

- A complex polycyclic core with multiple rings.
- Functional groups:  $R$ -NH,  $R_1$ ,  $R_2$ ,  $OH$ ,  $OCOC_6H_5$ , and  $OCOCH_3$ .
- Chiral centers indicated by wedged and dashed bonds.
- A complex ester linkage connecting the side chain to the polycyclic core.

wherein R is a *tert*-butoxycarbonyl, benzoyl, or straight or branched chain alkyl carbonyl group; R<sub>1</sub> is a phenyl or a straight or branched alkyl or alkenyl group; and R<sub>2</sub> is hydrogen or an acetyl group comprising

(b) esterifying the C-13 hydroxyl group of the protected 10-deacetylbaaccatin III with an oxazolidine 5-carboxylic acid of formula II



wherein R is a *tert*-butoxycarbonyl, benzoyl, or straight or branched chain alkyl carbonyl group; R<sub>1</sub> is a phenyl or a straight or branched alkyl or alkenyl group to provide a protected C-13 esterified 10-deacetylbaecatin III having an oxazolidine ring at the C-13 position;

(c) removing the trichloroacetyl groups from the protected C-13 esterified 10-deacetylbaccatin III to provide a C-13 esterified 10-deacetylbaccatin III;

(d) optionally acetylating the C-10 hydroxyl group of the C-13 esterified 10-deacetylbaccatin III to provide a C-13 esterified baccatin III; and

(e) hydrolyzing the oxazolidine ring of the protected C-13 esterified 10-deacetylbaccatin III or the C-13-esterified baccatin III in the presence of an acid to provide the compound of formula I.

11. (New) The process of claim 10, wherein step (b) is carried out in the presence of a condensing agent and a base.

12. (New) The process of claim 11, wherein the condensing agent is dicyclohexylcarbodiimide.

13. (New) The process of claim 12, wherein the base is pyridine.

14. (New) The process of claim 10, wherein step (c) is carried out using  $\text{NH}_4\text{OH}/\text{NH}_4\text{Cl}$  in an aliphatic solvent.

15. (New) The process of claim 10, wherein step (d) is carried out by reacting the C-13 esterified 10-deacetylbaccatin III with acetic anhydride in the presence of a cerium III, scandium, or ytterbium salt.

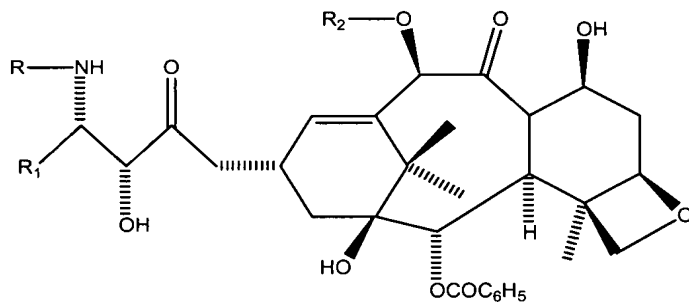
16. (New) The process of claim 10, wherein step (e) is carried out by reacting the protected C-13 esterified 10-deacetylbaccatin III or the C-13 esterified baccatin III with an organic acid or inorganic acid in an aliphatic alcohol or tetrahydrofuran.

17. (New) The process of claim 16, wherein the acid is formic acid.

18. (New) The process of claim 1, wherein R is a benzoyl group,  $\text{R}_1$  is a phenyl group, and  $\text{R}_2$  is an acetyl group.

19. (New) The process of claim 1, wherein R is *tert*-butoxycarbonyl group, R<sub>1</sub> is a phenyl group, and R<sub>2</sub> is a hydrogen.

20. (New) A compound of Formula (IV)



(IV)

wherein R is a *tert*-butoxycarbonyl, benzoyl, or straight or branched chain alkyl carbonyl group; R<sub>1</sub> is a phenyl or a straight or branched alkyl or alkenyl group; and R<sub>2</sub> is hydrogen or an acetyl group.

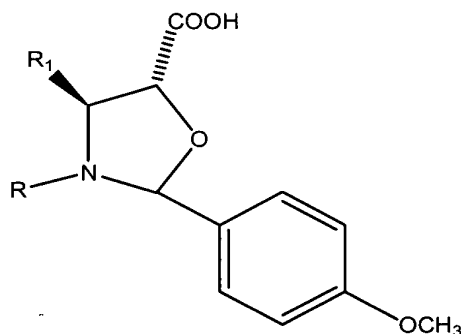
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**Appendix A**  
Changes to the Abstract

Please add the following abstract:

---A process for the preparation of taxane derivatives by reacting 10-deacetylbaccatin III protected at the 7- and 10- positions with trichloroacetyl groups with a compound of formula



and subsequent removal of the protective groups and hydrolysis of the oxazolidine ring.--

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